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10/691,704	10/24/2003	Bog Hyun Jang	P-0600	6789

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EXAMINER	
NGUYEN, LONG P	
ART UNIT	**PAPER NUMBER**
2616	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/691,704	JANG, BOG HYUN	
	Examiner	Art Unit	
	Long P. Nguyen	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *10/28/2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☒ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *9/8/2005*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: Base band on page 5 line 21 of the specification is misspelled.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-2 are rejected under 35 U.S.C. 102(b) as being anticipated by Kuroiwa (Ep 1,049,265).

As for claim 1, Kuroiwa shows calculating a correlation value by operating base band data **[0010, I and Q]** and synchronous code data values **[0010, spreading code]**; and detecting a correlation value greater than a preset threshold value by comparing the operated correlation value with a preset threshold value **[0023]**.

As for claim 2, Kuroiwa shows reading base band data and synchronous code data values **[0023]**; and determining a base band data position having a maximum value among correlation values greater than the threshold value as a synchronous position **[0024], [0025]**.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 3-10 D.Z are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuroiwa in view of Papasakellariou et al. (US 6,275,483 Hereinafter Papasakellariou).

As for claim 3, Kuroiwa shows operation of the baseband data and synchronous code data spreading but do not show the base band data and synchronous code data is performed by multiplying real number unit of the baseband data by real number unit of the synchronous code data. However, Papasakellariou show the base band data and synchronous code data is performed by multiplying real number unit of the base band data **(Figure 3 Q #34)** by real number unit of the synchronous code data **(Figure 3 PN Q #48)**. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the data and synchronize code spreading of Kuroiwa with the data and code spreading of Papasakellariou in order to digitize the data (Col. 4 line 43-45)

As for claim 4, Kuroiwa shows operation of the base band data and synchronous code data spreading but do not show operation of the baseband data and synchronous code data is performed by using only one combination among combinations of multiplying real number unit of the base band data with real number unit of the synchronous code data. However, Papasakellariou operation of the base band data

and synchronous code data is performed by using only one combination among combinations of multiplying **(Col. 4 line 49-51)** real number unit of the base band data **(Figure 3 Q #34)** with real number unit **(Figure 3 PN Q #48)** of the synchronous code data. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the data and synchronize code spreading of Kuroiwa with the data and code spreading of Papasakellariou in order to digitize the data (Col. 4 line 43-45)

As for claim 5, Kuroiwa shows operation of the base band data and synchronous code data spreading but do not show operation of the baseband data and synchronous code data is for calculating a correlation value by multiplying real number unit and imaginary number unit of the baseband data with real number unit and imaginary number unit of the synchronous code data. However Papasakellariou show operation of the base band data and synchronous code data is for calculating a correlation value by multiplying real number unit and imaginary number unit of the base band data with real number unit and imaginary number unit of the synchronous code data **(Col. 4 line 49-51) and (Figure 3)**. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the data and synchronize code spreading of Kuroiwa with the data and code spreading of Papasakellariou in order to digitize the data (Col. 4 line 43-45).

As for claim 6, Kuroiwa shows calculating correlation values by operating the extracted baseband data **[0010, I and Q]** with synchronous data **[0010, spreading code]**; and detecting baseband data having a correlation value greater than a preset threshold value by comparing the calculated correlation values with the present

threshold value **[0023]**, but Kuroiwa do not show base band data by dividing it into a certain block units. However, Papasakellariou show base band data by dividing it into a certain block units **(Col. 5 line 7-10)**. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify data and code spreading of Kuroiwa with the dividing into chips of Papasakellariou in order to conform to the standard of code spreading.

As for claim 7, Kuroiwa shows reading base band data and synchronous code data **[0023]**; determining a base band data position of a correlation value having a maximum value among the calculated correlation values as a synchronous position **[0023]** but Kuroiwa do not show calculating correlation values by multiplying next data of the detected baseband data by only real number unit of the synchronous code data; and determining a baseband data position of a correlation value having a maximum value among the calculated correlation values as a synchronous position. However Papasakellariou show calculating correlation values by multiplying next data **(Figure 3 Q #34)** of the detected base band data by only real number unit of the synchronous code data **(Figure 3 PN Q #48)**; It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the determining Threshold of Kuroiwa with the data and code spreading of Papasakellariou in order to digitize the data (Col. 4 line 43-45).

As for claim 8, Kuroiwa shows operation of the base band data and synchronous code data spreading but do not show operation of the baseband data and synchronous code data is performed by using only real number unit of the baseband data and real

number unit of the synchronous code data as data values. However Papasakellariou show operation of the base band data and synchronous code data is performed by using only real number unit of the base band data and real number unit of the synchronous code data as data values **(Col. 4 line 49-41, Figure 3)**. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the determining Threshold of Kuroiwa with the data and code spreading of Papasakellariou in order to digitize the data (Col. 4 line 43-45).

As for claim 9, Kuroiwa shows operation of the base band data and synchronous code data spreading but do not show a correlation value is obtained by multiplying real number unit and imaginary number unit of the baseband data with real number unit and imaginary number unit of the synchronous code data. However, Papasakellariou show a correlation value is obtained by multiplying real number unit and imaginary number unit of the base band data with real number unit and imaginary number unit of the synchronous code data **(Col. 4 line 49-51) and (Figure 3)**. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the data and synchronize code spreading of Kuroiwa with the data and code spreading of Papasakellariou in order to digitize the data (Col. 4 line 43-45).

As for claim 10, Kuroiwa shows operation of the base band data and synchronous code data spreading but do not show operation of the baseband data and synchronous code data is performed by using only one combination among combinations of multiplying real number unit or imaginary number unit of the baseband data with real number unit or imaginary number unit of the synchronous **(Col. 4 line 49-**

51 and Figure 3). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the data and synchronize code spreading of Kuroiwa with the data and code spreading of Papasakellariou in order to digitize the data (Col. 4 line 43-45).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Long P. Nguyen whose telephone number is (571)-272-9740. The examiner can normally be reached on Monday - Thursday 7:30 - 5:00 EST Alternate Friday 7:30-4:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doris To can be reached on 571-272-7629. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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